

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
1 July 2004 (01.07.2004)

PCT

(10) International Publication Number  
**WO 2004/054829 A2**

(51) International Patent Classification<sup>7</sup>: **B60J**  
(21) International Application Number:  
PCT/US2003/040137  
(22) International Filing Date:  
12 December 2003 (12.12.2003)  
(25) Filing Language: English  
(26) Publication Language: English  
(30) Priority Data:  
60/433,132 13 December 2002 (13.12.2002) US  
(71) Applicant (for all designated States except US):  
**COLLINS & AIKMAN PRODUCTS CO.** [US/US]; 350  
Stephenson Highway, Troy, MI 48083 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

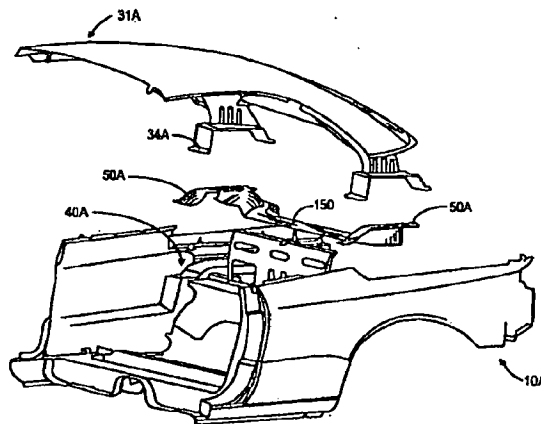
(72) Inventors; and  
(75) Inventors/Applicants (*for US only*): **HARRISON, Albert, W., III** [US/US]; 18430 Fairway Drive, Detroit, MI 48221 (US). **THOMAS, John** [US/US]; 1814 Chase Drive, Rochester Hills, MI 48307 (US).  
(74) Agents: **GROSSMAN, Steven, J. et al.**; Grossman, Tucker, Perreault & Pfleger, PLLC, 55 South Commercial Street, Manchester, NH 03101 (US).

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MULTIPLE ROOF CONFIGURATIONS FOR A SINGLE VEHICLE PLATFORM



(57) Abstract: An apparatus for use in a motor vehicle having a roof system, the motor vehicle further having a body with a passenger compartment and a trunk space, the apparatus comprising a roof system comprising any one of a rigid panel hardtop, a retractable hardtop moveable from an extended position disposed above the passenger compartment to a retracted position, or a soft convertible top moveable from an extended position disposed above the passenger compartment to a retracted position, wherein any one of the rigid panel hardtop, retractable hardtop or convertible soft top includes an attachment bracket. A transverse support beam having a first end and a second end is included, the support beam carrying any one of the rigid panel top, the retractable hardtop or the soft convertible top, wherein the first end and said second end include universal adapter brackets. The universal adapter brackets are connected to the attachment brackets and to the vehicle body.